

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

LISTING OF CLAIMS

1. (Currently Amended) A home appliance control system, comprising:

an external Internet network installed outside of a building;

an internal network installed inside of the building and connected to ~~said the~~ external Internet network via networking equipment;

a ~~plurality of home appliances~~ appliance installed in the building;

a computing device that sets a private Internet protocol (IP) addresses address and a port numbers number of ~~said the~~ home appliances appliance such that said appliances the home appliance are is connected to ~~said the~~ internal network based on the set private IP addresses address and port numbers number, ~~said the~~ computing device having a public IP address that enables access from ~~said the~~ external Internet network; and

~~a plurality of communication modules~~ module installed in the home appliance which, ~~each of said communication modules corresponding to one of said home appliances and storing~~ stores the private IP address and port number of the ~~corresponding one of said home appliances,~~ appliance, set by ~~said the~~ computing device, and ~~processing~~ processes data transmitted and received between ~~said the~~ internal network and ~~said corresponding the~~ home appliance to standards of ~~said the~~ internal network and ~~said corresponding the~~ home appliance.

2. (Canceled).

3. (Currently Amended) The home appliance control system as set forth in claim 1, wherein ~~each of said~~ the communication modules include module comprises:

a data storage unit that stores the set private IP address and port number of ~~said~~ corresponding the home appliance;

an interface storage unit that stores a user interface appropriate to a control and state observation of ~~said corresponding the~~ the home appliance having said the private IP address and port number stored in said the data storage unit; and

a data processor that converts and processes data transmitted and received between said the internal network and a main controller of ~~said corresponding the~~ the home appliance appropriately to standards of said the internal network and main controller.

4. (Currently Amended) The home appliance control system as set forth in claim 3, wherein said the user interface stored in said the interface storage unit is configured to be sent to said the computing device such that a user controls ~~said corresponding the~~ the home appliance through said the computing device.

5. (Currently Amended) The home appliance control system as set forth in claim 4, wherein said the user interface stored in said the interface storage unit includes a Java program executable in said the computing device.

6. (Currently Amended) The home appliance control system as set forth in claim 4, wherein said the user interface stored in said the interface storage unit includes a Java program executable in a personal computer of a user when the user gains access to said the computing device through said the external Internet network.

7. (Currently Amended) A method for controlling a home appliances appliance, comprising:

installing a ~~plurality of~~ communication ~~modules~~ module in the home appliances appliance, ~~each of the communication modules~~ module ~~storing that stores~~ a set private IP address and port number of ~~a corresponding one of the home appliances~~ appliance and ~~processing processes~~ data transmitted and received between an internal network of a building in which the home appliances ~~are~~ appliance is installed and the ~~corresponding home appliances~~ appliance to standards of the internal network and the ~~corresponding home appliance~~;

setting the private IP addresses address and port numbers number of the home appliances appliance with a computing device that has a public IP address that enables access from an external Internet network; and

controlling ~~each of the home appliances~~ appliance with the set private IP addresses address and port numbers number through a user interface.

8. (Currently Amended) The method as set forth in Claim 7, further comprising:

determining whether a user has a code valid to control ~~a specific~~ the home appliance when the user desires to gain access to control the ~~specific~~ home appliance;

whereby the user selectively controls the home ~~appliances~~ appliance through the user interface only when the user has the valid code.

9. (Currently Amended) The method as set forth in Claim 7, further comprising:
connecting the home ~~appliances~~ appliance to the internal network if the private IP ~~addresses~~ address and port ~~numbers~~ number of the home ~~appliances~~ appliance is set; and
determining whether the home ~~appliances~~ appliance has been connected to the internal network.

10. (Currently Amended) The method as set forth in Claim 7, wherein controlling the home ~~appliances~~ appliance through the user interface comprises:
storing the user interface appropriate to the appliance control in ~~each of the~~ home ~~appliances~~ appliance and sending the stored user interface to a user desiring the appliance control, such that the user interface is executed by the user.

11. (Currently Amended) The method as set forth in Claim 10, wherein controlling the home ~~appliances~~ appliance through the user interface further comprises:
determining whether a private IP address and port number contained in home appliance control information inputted through the user interface corresponds to ~~the a~~ set private IP address and port number of ~~each of the~~ a specific home ~~appliances~~ appliance of a plurality of home appliances;

transferring a user's control command inputted through the user interface to ~~a~~the specific home appliance when the private IP address and port number of the home appliance control information corresponds to the set private IP address and port number of the ~~specific~~ home appliance; and

controlling ~~only~~ the specific home appliance in response to the transferred control command.